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EXAMINER	
KAUFFMAN, BRIAN K	

ART UNIT	PAPER NUMBER
3765	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/785,203	ATTA ET AL.	
	Examiner	Art Unit	
	Brian K. Kauffman	3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/17/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 28, 36, 42, and 48 are objected to because of the following informalities: in claim 28, line 3; "extends" should be changed to "extending". In claim 36, line 5, "the" should be inserted between "to" and "skin". In claim 42, on line 4, "lines" should be replaced with "lens". In claim 48, on line 2, "to provide" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Runckel (5,331,691).

In regard to claims 30 and 31, Runckel discloses an eyepiece for swim goggles comprising an anterior lens (14) that is positioned in front of an eye in an as worn orientation, the lens having a posterior surface and an anterior surface defining a lens thickness there between; and a peripheral flange (16) shaped to generally conform to the shape of the orbital rim, the flange having a posterior surface; wherein the posterior surface of the flange and the posterior surface of the lens define a minimum depth (51) of the eyepiece that is less than 5.75 mm (col. 4, lines 27-29).

Claims 40, 42-43, 46-48, and 50-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiang (5,896,588).

In regard to claim 40, Chiang discloses swim goggles comprising a pair of eyepieces, each eyepiece being shaped to provide a water-tight seal around an eye of a

user during use of the goggles, each eyepiece having a flat, transparent anterior lens (12) that is positioned in front of a respective eye in an as worn orientation and a flat, transparent side lens (121) connected to and inclined away from a respective anterior lens in a temporal direction so as to reduce hydrodynamic drag and prismatic distortion of the respective eyepiece (fig. 3).

In regard to claims 42 and 43, Chiang discloses that the side lens is oriented with respect to the anterior lens such that a line of sight along the visual axis intersects the side lens at 90 degrees and at the midpoint of the side lens whenever the eye is rotated to a temporal position at which the visual axis intersects the side lens (fig. 3).

In regard to claim 46, Chiang discloses that each eyepiece further comprises an annular side wall (10) surrounding a respective anterior lens and side lens and extending rearwardly therefrom; and a posterior frame portion (11) connected to a respective side wall opposite the anterior lens and side lens, the frame portion being shaped to form a water-tight seal around an eye (fig. 3).

In regard to claim 47, Chiang discloses a nose piece (131) connecting adjacent nasal end portions of the eyepieces and dimensioned to extend over the user's nose; and a head strap (14) connected to respective temporal end portions (102) of the eyepieces and dimensioned to extend around the rear of the user's head.

In regard to claim 48, Chiang discloses swim goggles comprising two frame portions, each being shaped to surround an eye and form a water-tight seal against the skin adjacent the respective eye; two flat anterior lenses (12) coupled to respective frame portions (10), each anterior lens being oriented to reside in front of an eye in an

as worn orientation; and two flat side lenses (121) each connected to a respective anterior lens and extending rearwardly and temporally therefrom, each side lens being oriented with respect to an anterior lens such that there is no prismatic distortion of an image viewed along a line of sight intersecting the side lens (fig. 3).

In regard to claim 50, Chiang discloses an eyepiece for swim goggles comprising a body adapted to be worn over the eye of a user and form a water-tight seal around the eye that isolates the eye from the surrounding environment during use, the body comprising a transparent lens portion that includes a first anterior lens (12) having a flat anterior surface, wherein the anterior lens is positioned in front of the eye in an as worn orientation, and the lens portion also having at least a second side lens (121) having a flat anterior surface, wherein the second side lens is connected to the anterior lens at an obtuse angle and extend rearwardly and temporally therefrom so as to reduce prismatic distortion of the lens portion (fig. 3).

In regard to claim 51, it is inherent that Chiang discloses lenses that have optical power since optical power is a property of all lenses.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 26, 28-29, and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Runckel (5,331,691) in view of Banks (6,131,208).

In regard to claims 1-6, Runckel discloses an eyepiece for swim goggles comprising a protective body adapted to be worn over an eye of a user, the body comprising a transparent lens portion (14) and a frame portion surrounding the lens portion wherein the frame portion is shaped to generally conform to the shape of an orbital rim of the eye (fig. 1); and form a substantially water-tight seal around the eye that substantially isolates the eye from the surrounding environment during use (col. 5, lines 28-32). Runckel also discloses that the frame portion be configured to enable the user to retain the eyepiece in place by contracting the orbicularis oculi muscles against the frame portion (fig.2). Runckel also discloses that the frame portion is configured to fit at least partially within the orbital rim (fig. 2). Runckel does not disclose an adhesive layer comprised of double sided tape having a first adhesive surface secured to the posterior surface of the frame and a second adhesive surface that adhesively secures the frame to the skin of the user and is shaped to adhere to the skin substantially around the eye while also comprising a cover layer overlaying the adhesive tape and

adapted to be removed prior to use. However, Runckel does disclose that a fastening system ***such as*** a strap is provided for securing the eyepieces over the swimmer's eyes (col. 1, lines 66-68) thus implying that there are other possible methods that might be used to secure the goggles. Banks discloses a possible alternative method for securing the goggles. Banks discloses an adhesive layer comprised of double sided tape (5) having a first adhesive surface secured to the posterior surface of the frame and a second adhesive surface that adhesively secures the frame to the skin of the user and is shaped to adhere to the skin substantially around the eye while also comprising a cover layer (6, 8) overlaying the adhesive tape and adapted to be removed prior to use (fig. 6). Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Runckel's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Runckel's apparatus by replacing the strap with a double-sided adhesive tape as taught by Banks since the adhesive tape is an effective alternative to the strap in serving the function of attaching the body to the face and subsequently creating a water-tight seal.

In regard to claims 26 and 28-29, Runckel discloses an eyepiece for swim goggles comprising a body comprising a transparent lens (14) and a peripheral flange

(42) surrounding the lens, the flange having a posterior surface. Runckel does not disclose an adhesive layer mounted on the posterior surface of the flange. However, Runckel does disclose that a fastening system ***such as*** a strap is provided for securing the eyepieces over the swimmer's eyes (col. 1, lines 66-68) thus implying that there are other possible methods that might be used to secure the goggles. Banks discloses a possible alternative method for securing the goggles by disclosing an adhesive layer (5) mounted on the posterior surface of the flange (fig. 4). Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Runckel's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Runckel's apparatus by replacing the strap with an adhesive layer mounted on the posterior surface of the flange as taught by Banks since the adhesive is an effective alternative to the strap in serving the function of attaching the body to the face and subsequently creating a water-tight seal.

In regard to claim 28, Runckel discloses that the lens comprises a flat anterior lens portion that is positioned in front of an eye in an as worn orientation and the body further comprises an annular peripheral wall (16, 18) that surrounds the anterior lens portion extending between the anterior lens portion and the flange (fig. 1).

In regard to claim 29, it is inherent that Runckel discloses lenses that have optical power since optical power is a property of all lenses.

In regard to claim 52, Runckel discloses a swim goggle assembly comprising a pair of eyepieces adapted to be worn over the eyes of a user, each eyepiece having a posterior surface (fig. 3a). The set of instructions is not given any patentable weight since it does not further limit the structure of the goggle assembly. Runckel does not disclose at least two pieces of double-sided adhesive tape that are shaped to be applied to the posterior surfaces of the eyepieces so that the tape can be used to adhesively secure the eyepieces to the skin of the user. However, Runckel does disclose that a fastening system ***such as*** a strap is provided for securing the eyepieces over the swimmer's eyes (col. 1, lines 66-68) thus implying that there are other possible methods that might be used to secure the goggles. Banks discloses a possible alternative method for securing the goggles by disclosing at least two pieces of double-sided adhesive tape (5) that are shaped to be applied to the posterior surfaces of the eyepieces so that the tape can be used to adhesively secure the eyepieces to the skin of the user (fig. 4 and 6). Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Runckel's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary

skill in the art at the time the invention was made to modify Runckel's apparatus by replacing the strap with an double-sided adhesive tape mounted on the posterior surfaces of the eyepieces as taught by Banks since the adhesive is an effective alternative to the strap in serving the function of attaching the body to the face and subsequently creating a water-tight seal.

In regard to claim 53, Runckel discloses an eyepiece comprising a body comprising a transparent lens (14) and a peripheral flange (42) surrounding the lens, the flange having a posterior surface. Runckel does not disclose an adhesive layer mounted on the posterior surface of the flange and having an adhesive surface that adhesively secures the body to the skin of the user in close proximity to the eye so as to substantially isolate the eye from the surrounding environment during use. However, Runckel does disclose that a fastening system ***such as*** a strap is provided for securing the eyepieces over the swimmer's eyes (col. 1, lines 66-68) thus implying that there are other possible methods that might be used to secure the goggles. Banks discloses a possible alternative method for securing the goggles by disclosing an adhesive layer (5) mounted on the posterior surface of the flange and having an adhesive surface that adhesively secures the body to the skin of the user in close proximity to the eye so as to substantially isolate the eye from the surrounding environment during use (fig. 4 and 6). Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the

skin, the adhesive must be waterproof. Finally, Bank's apparatus and Runckel's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Runckel's apparatus by replacing the strap with an double-sided adhesive tape mounted on the posterior surface of the flange as taught by Banks since the adhesive is an effective alternative to the strap in serving the function of attaching the body to the face and subsequently creating a water-tight seal.

Claims 7-9, 15-16, 20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (6,574,802) in view of Banks (6,131,208).

In regard to claims 7-9 and 15-16, Chiang discloses swim goggles comprising a pair of unconnected eyepieces, each eyepiece adapted to provide a water-tight seal around an eye of a user during use of the goggles, wherein each eyepiece comprises a peripheral flange that is shaped to generally conform to the shape of an orbital rim and a transparent lens portion positioned in front of an eye when the eyepiece is being worn (fig. 2). Chiang does not disclose an adhesive for adhering the body to the user's skin adjacent a respective eye wherein each eyepiece has a layer of adhesive tape for adhesively securing the eyepiece to the skin and that the adhesive tape comprise a deformable layer having an adhesive surface for adhering to the skin. However, Chiang does disclose that the objective of the apparatus is to provide goggles that have lenses that are independently adjustable and water-tight (col. 1, lines 40-60). Chiang never states that this objective cannot be achieved without the use of straps. Banks discloses an alternate method for attaching the lenses to the face of the user without using straps.

Banks discloses an adhesive (5) for adhering the body to the user's skin adjacent a respective eye wherein each eyepiece has a layer of adhesive tape for adhesively securing the eyepiece to the skin and that the adhesive tape comprise a deformable layer having an adhesive surface for adhering to the skin (fig. 4 and 6). The adhesive tape provides an alternative means to attach the body to the face while also achieving the main objective of Chiang's apparatus, which is to allow for the independent adjustability of each eyepiece. Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by replacing the straps with an adhesive tape as taught by Banks in order to provide an alternative means of attaching the goggles to the skin of the user while still allowing for the independent adjustability of each eyepiece.

In regard to claims 20, 22, and 24, Chiang discloses a method of using swim goggles comprising a pair of unconnected eyepieces, (fig. 2). Chiang does not disclose securing the eyepieces to the face adjacent the eyes without the aid of a strap. However, Chiang does disclose that the objective of the apparatus is to provide goggles that have lenses that are independently adjustable and water-tight (col. 1, lines 40-60).

Chiang never states that this objective cannot be achieved without the use of straps. Banks discloses an alternate method for attaching the lenses to the face of the user without using straps. Banks discloses an adhesive (5) for adhering the body to the user's skin adjacent a respective eye wherein each eyepiece has a layer of adhesive tape for adhesively securing the eyepiece to the skin and that the adhesive tape comprise a deformable layer having an adhesive surface for adhering to the skin (fig. 4 and 6). The adhesive tape provides an alternative means to attach the body to the face while also achieving the main objective of Chiang's apparatus, which is to allow for the independent adjustability of each eyepiece. Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by replacing the straps with an adhesive tape as taught by Banks in order to provide an alternative means of attaching the goggles to the skin of the user while still allowing for the independent adjustability of each eyepiece.

Claims 10-12,17, 21, 23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (6,574,802) in view of Banks (6,131,208) in further view of Runckel (5,331,691).

In regard to claims 10-12 and 17, Chiang discloses swim goggles comprising a pair of unconnected eyepieces, each eyepiece adapted to provide a water-tight seal around an eye of a user during use of the goggles (fig. 2). Chiang does not disclose securing the eyepieces to the user's face without the use of straps. However, Chiang does disclose that the objective of the apparatus is to provide goggles that have lenses that are independently adjustable and water-tight (col. 1, lines 40-60). Chiang never states that this objective cannot be achieved without the use of straps. Banks discloses an alternate method for attaching the lenses to the face of the user without using straps. Banks discloses an adhesive (5) for adhering the body to the user's skin adjacent a respective eye wherein each eyepiece has a layer of adhesive tape for adhesively securing the eyepiece to the skin and that the adhesive tape comprise a deformable layer having an adhesive surface for adhering to the skin (fig. 4 and 6). The adhesive tape provides an alternative means to attach the body to the face while also achieving the main objective of Chiang's apparatus, which is to allow for the independent adjustability of each eyepiece. Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by

replacing the straps with an adhesive tape as taught by Banks in order to provide an alternative means of attaching the goggles to the skin of the user while still allowing for the independent adjustability of each eyepiece.

In regard to claims 10-12, the combination of Chiang and Banks does not disclose that each peripheral flange is sized and shaped to fit within a respective orbital rim. Runckel does disclose that each peripheral flange is sized and shaped to fit within a respective orbital rim (fig. 1, fig. 2). Runckel teaches that the disclosed configuration creates minimal water resistance (col. 2, lines 34-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Chiang's and Banks' devices by requiring that the peripheral flanges be sized and shaped to fit within the respective orbital rims as taught by Runckel in order to minimize water resistance.

In regard to claim 17, Runckel teaches that the eyepieces can be retained in place by contracting the orbicularis oculi muscles against the frame portions (fig. 2).

In regard to claims 21, 23, and 25, Chiang discloses swim goggles comprising a pair of unconnected eyepieces, each eyepiece adapted to provide a water-tight seal around an eye of a user during use of the goggles (fig. 2). Chiang does not disclose securing the eyepieces to the user's face without the use of straps. However, Chiang does disclose that the objective of the apparatus is to provide goggles that have lenses that are independently adjustable and water-tight (col. 1, lines 40-60). Chiang never states that this objective cannot be achieved without the use of straps. Banks discloses an alternate method for attaching the lenses to the face of the user without using straps.

Banks discloses an adhesive (5) for adhering the body to the user's skin adjacent a respective eye wherein each eyepiece has a layer of adhesive tape for adhesively securing the eyepiece to the skin and that the adhesive tape comprise a deformable layer having an adhesive surface for adhering to the skin (fig. 4 and 6). The adhesive tape provides an alternative means to attach the body to the face while also achieving the main objective of Chiang's apparatus, which is to allow for the independent adjustability of each eyepiece. Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by replacing the straps with an adhesive tape as taught by Banks in order to provide an alternative means of attaching the goggles to the skin of the user while still allowing for the independent adjustability of each eyepiece.

In regard to claims 21, 23, and 25, the combination of Chiang and Banks does not teach positioning each eyepiece within an orbital rim. Runckel does teach positioning each eyepiece within an orbital rim fig. 1, fig. 2). Runckel teaches that the disclosed configuration creates minimal water resistance (col. 2, lines 34-59). It would have been obvious to one having ordinary skill in the art at the time the invention was

made to modify the combination of Chiang's and Banks' devices by positioning each eyepiece within an orbital rim as taught by Runckel in order to minimize water resistance. Although the combination of Chiang, Banks, and Runckel does not specifically disclose creating a vacuum between each eyepiece and the face, it is widely known within the art that physically pressing existing goggle eyepieces to the face creates a vacuum between the eyepiece and the face. Runckel even discloses that the vacuum at times can be uncomfortable to the user (col. 1, lines 27-31). In addition, contracting the orbicularis oculi muscles against eyepieces positioned within the eye orbits in order to secure them to the face is a method that is widely known in the art and can be found in such examples as securing monocles to the user's face. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the method of creating a vacuum between the eyepieces and the user's face as well as utilizing the method of contracting the orbicularis oculi muscles against the eyepiece as a means for securing the eyepiece to the user's face since both methods are widely known and used in the art.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (6,574,802) in view of Runckel (5,331,691). Chiang discloses a pair of unconnected eyepieces, each eyepiece adapted to provide a water-tight seal around the eye of a user during the use of the goggles (fig. 6). Chiang does not disclose that each eyepiece has a minimum depth of 5.75 mm or less. Runckel does disclose that each eyepiece has a minimum depth of 5.75 mm or less (col. 4, lines 27-29). Runckel teaches that shaping the eyepieces to fit within the user's eye orbits so that the goggles

do not extend beyond the user's facial plane creates minimal water resistance (col. 2, lines 34-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus so that it can fit within the user's eye orbits as taught by Runckel so that the goggles do not extend beyond the user's facial plane and thus create minimal water resistance.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (6,574,802) in view of Banks (6,131,208) in further view of Chiang (5,896,588).

Chiang discloses swim goggles comprising a pair of unconnected eyepieces, each eyepiece adapted to provide a water-tight seal around an eye of a user during use of the goggles (fig. 2). Chiang does not disclose securing the eyepieces to the user's face without the use of straps. However, Chiang does disclose that the objective of the apparatus is to provide goggles that have lenses that are independently adjustable and water-tight (col. 1, lines 40-60). Chiang never states that this objective cannot be achieved without the use of straps. Banks discloses an alternate method for attaching the lenses to the face of the user without using straps. Banks discloses an adhesive (5) for adhering the body to the user's skin adjacent a respective eye wherein each eyepiece has a layer of adhesive tape for adhesively securing the eyepiece to the skin and that the adhesive tape comprise a deformable layer having an adhesive surface for adhering to the skin (fig. 4 and 6). The adhesive tape provides an alternative means to attach the body to the face while also achieving the main objective of Chiang's apparatus, which is to allow for the independent adjustability of each eyepiece. Since

the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by replacing the straps with an adhesive tape as taught by Banks in order to provide an alternative means of attaching the goggles to the skin of the user while still allowing for the independent adjustability of each eyepiece.

The combination of Chiang (6,574,802) and Banks discloses that each eyepiece comprise a flat anterior lens portion (22) that is positioned in front of an eye in an as worn orientation and an annular peripheral wall (20) that surrounds the respective anterior lens portions. The combination of Chiang (6,574,802) and Banks does not disclose a flat side lens portion that extends rearwardly and temporally from a respective anterior lens portion at an obtuse angle. Chiang (5,896,588) does disclose a flat side lens portion (121) that extends rearwardly and temporally from a respective anterior lens portion at an obtuse angle (fig. 3). The side lens portion increases the field of view for the user (col. 3, lines 7-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Chiang's (6,574,802) and Banks' devices by adding a flat side lens portion that extends

rearwardly and temporally from a respected anterior lens portion at an obtuse angle as taught by Chiang (5,896,588) in order to increase the field of view for the wearer.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Runckel (5,331,691) in view of Banks (6,131,208) in further view of Chiang (5,896,588).

Runckel discloses an eye piece for swim goggles comprising a body comprising a transparent lens (14) and a peripheral flange (42) surrounding the lens, the flange having a posterior surface. Runckel does not disclose an adhesive layer mounted on the posterior surface of the flange. However, Runckel does disclose that a fastening system ***such as*** a strap is provided for securing the eyepieces over the swimmer's eyes (col. 1, lines 66-68) thus implying that there are other possible methods that might be used to secure the goggles. Banks discloses a possible alternative method for securing the goggles by disclosing an adhesive layer (5) mounted on the posterior surface of the flange (fig. 4). Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Runckel's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Runckel's apparatus by replacing the strap with an adhesive layer mounted on the posterior surface of the flange as taught by Banks since

the adhesive is an effective alternative to the strap in serving the function of attaching the body to the face and subsequently creating a water-tight seal.

The combination of Runckel and Banks does not teach an eyepiece that comprises a flat side lens portion that extends rearwardly and temporally from the anterior lens portion at an obtuse angle. Chiang does disclose an eyepiece that comprises a flat side lens (121) portion that extends rearwardly and temporally from the anterior lens portion at an obtuse angle (fig. 3). The side lens portion increases the field of view for the user (col. 3, lines 7-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Runckel's and Banks' devices by adding a flat side lens portion that extends rearwardly and temporally from the anterior lens portion at an obtuse angle as taught by Chiang in order to increase the field of view for the wearer.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (6,574,802) in view of Runckel (5,331,691) in further view of Banks (6,131,208). Chiang discloses swim goggles comprising a pair of unconnected eyepieces (fig. 1), each eyepiece adapted to provide a water-tight seal around an eye of a user during use of the goggles (col. 3, lines 26-29); each eyepiece comprising a transparent lens portion (22) and a frame portion (20) surrounding the lens portion. Chiang does not disclose that each frame portion be configured to fit at least partially within an orbital rim, each frame portion being adapted as to enable the user to retain the eyepieces against the face by contracting the orbicularis oculi muscles. Runckel does disclose that each frame portion be configured to fit at least partially within an orbital rim, each frame

portion being adapted as to enable the user to retain the eyepieces against the face by contracting the orbicularis oculi muscles (fig. 2). Positioning at least a portion of each eyepiece within an orbital rim creates minimal water resistance (col. 2, lines 34-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's device to configure the frame portions to at least fit partially within an orbital rim as taught by Runckel in order to minimize water resistance.

Neither Chiang nor Runckel disclose a layer of adhesive tape secured to the frame portion of each eyepiece and having an adhesive surface for adhering to the skin adjacent to the eye and a removable cover layer overlaying the adhesive surface of each layer of adhesive tape. However, Runckel does disclose that a fastening system ***such as*** a strap is provided for securing the eyepieces over the swimmer's eyes (col. 1, lines 66-68) thus implying that there are other possible methods that might be used to secure the goggles. Banks discloses a possible alternative method for securing the goggles. Banks discloses a layer of adhesive tape (5) secured to the frame portion of each eyepiece and having an adhesive surface for adhering to the skin adjacent to the eye and a removable cover layer (6, 8) overlaying the adhesive surface of each layer of adhesive tape (fig. 6). Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Runckel's apparatus are analogous since they both protect the

user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Runckel's apparatus by replacing the strap with a double-sided adhesive tape as taught by Banks since the adhesive tape is an effective alternative to the strap in serving the function of attaching the body to the face and subsequently creating a water-tight seal.

Claims 33-35, 37-38, and 44-45 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chiang (5,896,588).

In regard to claim 33, Chiang discloses an eyepiece for swim goggles comprising a body adapted to be worn over the eye of a user and form a water-tight seal around the eye that isolates the eye from the surrounding environment during use, the body comprising a transparent lens portion that includes a first, flat anterior lens (12) that is positioned in front of the eye in an as worn orientation and a second, flat lens (121) comprising flat and parallel opposed surfaces, the second lens being connected to the anterior lens at an obtuse angle and extending rearwardly therefrom, wherein the second lens reduces prismatic distortion of the lens portion (fig. 3). Although Chiang does not specifically disclose that the obtuse angle be approximately 124° to 164°, it would have been obvious that the obtuse angle in Chiang's apparatus would include this range since the claimed range falls within the general range of obtuse angles. The range claimed by the applicant does not appear to be critical to the functionality of the apparatus, and the applicant's specification even states that the angles could be less than or greater than the claimed range (page 18, lines 15-17).

In regard to claim 34, Chiang discloses that the second lens (121) is a side lens that extends rearwardly and temporally from the anterior lens, wherein the side lens reduces hydrodynamic drag of the eyepiece and prismatic distortion of the lens portion (fig. 3).

In regard to claim 35, Chiang discloses that the side lens (121) is connected to the anterior lens (12) at an angle at which a line of sight extends perpendicularly with respect to the side lens whenever the eye is rotated temporally to a position at which the visual axis intersects a midpoint of the side lens (fig. 30).

In regard to claims 37 and 38, Chiang discloses an eyepiece for swim goggles comprising a body adapted to be worn over the eye of a user and form a water-tight seal around the eye that isolates the eye from the surrounding environment during use, the body including a frame portion (10) that is coupled to the lens portion and is shaped to generally conform to the shape of the orbital rim, the body comprising a transparent lens portion that includes a first, flat anterior lens (12) that is positioned in front of the eye in an as worn orientation and a second, flat lens (121) connected to the anterior lens at an obtuse angle and extending rearwardly and temporally therefrom, wherein the second lens reduced prismatic distortion of the lens portion; wherein the second lens reduces hydrodynamic drag of the eyepiece; wherein the side lens is connected to the anterior lens at an angle at which a line of sight extends perpendicularly with respect to the side lens whenever the eye is rotated temporally to a position at which the visual axis intersects a midpoint of the side lens (fig. 3). Although Chiang does not specifically disclose that the obtuse angle be approximately 144°, it would have been obvious that

the obtuse angle in Chiang's apparatus would include this angle since the claimed angle falls within the general range of obtuse angles. The angle claimed by the applicant does not appear to be critical to the functionality of the apparatus, and the applicant's specification even states that the angles could be less than or greater than the claimed angle (page 18, lines 15-17).

In regard to claims 44 and 45, , it would have been obvious that the obtuse angle in Chiang's apparatus would include the claimed range since it falls within the general range of obtuse angles. The range claimed by the applicant does not appear to be critical to the functionality of the apparatus, and the applicant's specification even states that the angles could be less than or greater than the claimed range (page 18, lines 15-17).

Claims 36 and 39 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chiang (5,896,588) in further view of Banks (6,131,208).

In regard to claim 36, Chiang does not disclose that the body comprises a piece of double-sided tape having a first adhesive surface adhering to a posterior surface of the frame and a second adhesive surface for adhering to the skin substantially surrounding the eye. However, Chiang does disclose that an objective of apparatus is to more evenly distribute the force around the lens frame (col. 1, lines 61-67). Banks discloses that the body comprises a piece of double-sided tape (5) having a first adhesive surface adhering to a posterior surface of the frame and a second adhesive surface for adhering to the skin substantially surrounding the eye (fig. 4 and 6). Bank's

use of adhesive tape as a means to attach the goggles to the face of the user would evenly distribute the force around the lens frame. Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by utilizing a double-sided adhesive tape as a means to attach the goggles to the face of the user as taught by Banks since the use of adhesive tape would evenly distribute the force around the lens frame.

In regard to claim 39, Chiang does not disclose that the frame portion has an adhesive layer that adhesively secures the eyepiece to the skin of the user. However, Chiang does disclose that an objective of apparatus is to more evenly distribute the force around the lens frame (col. 1, lines 61-67). Banks discloses that the frame portion has an adhesive layer (5) that adhesively secures the eyepiece to the skin of the user (fig. 4 and 6). Bank's use of an adhesive layer as a means to attach the goggles to the face of the user would evenly distribute the force around the lens frame. Since the nature of adhesives require that they fill any gaps between the two surfaces being bonded, the adhesive tape disclosed by Banks would be able to prevent any water from infiltrating the goggles. In addition, since Bank's apparatus is designed to interact with a

user's face, which sometimes produces perspiration on the surface of the skin, the adhesive must be waterproof. Finally, Bank's apparatus and Chiang's apparatus are analogous since they both protect the user's eyes from outside elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by utilizing an adhesive layer as a means to attach the goggles to the face of the user as taught by Banks since the use of an adhesive layer would evenly distribute the force around the lens frame.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (5,896,588) in view of Runckel (5,331,691). Chiang does not disclose that each eyepiece has a minimum depth of 6 mm or less. Runckel does disclose that each eyepiece has a minimum depth of 6 mm or less (col. 4, lines 27-29). Runckel teaches that shaping the eyepieces to fit within the user's eye orbits so that the goggles do not extend beyond the user's facial plane creates minimal water resistance (col. 2, lines 34-59). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus so that it can fit within the user's eye orbits as taught by Runckel so that the goggles do not extend beyond the user's facial plane and thus create minimal water resistance.

Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang (5,896,588) in view of Webster (6,006,367). Webster discloses two annular, transparent side walls (60), each side wall connected at one end to a respective frame portion (14, 16) and at another end to a respective anterior lens and side lens (fig. 4, col. 3, lines 45-49). The transparent walls increase the user's field of view. It would have been

obvious to one having ordinary skill in the art at the time the invention was made to modify Chiang's apparatus by including transparent annular walls as taught by Webster in order to increase the user's field of view.

Response to Arguments

Applicant's arguments filed 3/17/2005 with respect to claims 1-53 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lathrop (5,546,611) discloses a swim goggle structure that has a side lens. Lane et al. (6,609,255) disclose eyeshields that can be attached to the user's face using adhesive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Kauffman whose telephone number is (571)272-4988. The examiner can normally be reached on M-F every week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (571)272-4983. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKK
6/9/05

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